

PSMC



**Parts Standardization &
Management Committee
(PSMC) Spring Conference
McLean, VA
April 20-22, 2010**

Dynamic Recrystallization (DRX) as the Mechanism for Sn Whisker Development: Model and Experiments

P.T. Vianco and J.A. Rejent, Sandia National Laboratories

Interface Flow Mechanism to Explain Tin Whisker Growth Using FIB Technology

Jing Cheng and James Li, University of Rochester

P.T. Vianco, Sandia National Laboratories

Real-time Studies of Whisker Growth : Trying to Understand the Stress, IMC and Whisker Connection

Prof. Eric Chason, Nitin Jadhav, Eric Buchovecky, Allan Bower and Sharvan Kumar

Brown University

Stress and IMC growth in annealed and reflowed Sn-Cu bilayers and their relation to whisker kinetics

Nitin Jadhav and Eric Chason - Brown University

Gordon Barr-EMC Corporation

A Synchrotron Micro-Diffraction Investigation of Crystallographic Texture of pure Sn, Sn-Cu, and Sn-Cu-Pb Films and its Effects on Whisker Growth

Pylin Sarobol, Aaron Pedigo, John Blendell, Carol Handwerker-Purdue University; Peng Su -Cisco

Indentation induced whisker formation

Michael Osterman, Danny Birndt, Alex Heronime, Sungwon Han and

Lyudmyla Panashchenko

University of Maryland

Status whisker research efforts with JEITA

Prof. Katsuaki Suganuma

Osaka University

Tin Whisker Growth and the Structure Zone Model for Electroplated Tin

Aaron Pedigo, Pylin Sarobol, John Blendell, and Carol Handwerker - Purdue University

SEM Observation and EBSD Analysis of Straight and Kinked Sn Whiskers

Donald Susan, Joe Michael, Edward Webb III, Dick Grant, Bonnie McKenzie and Graham Yelton

Sandia National Laboratories

Effect of Soldering Method, Temperature, and Humidity on Whisker Growth on Lead-free Solders in the Presence of Flux Residue

Keith Sweatman, K. Howell, J. Masuda, T. Nozu, M. Koshi and T. Nishimura

-Nihon Superior

Effects of Reflow Atmosphere and Flux on Sn Whisker Growth of Sn-

Tin Reflow for Tin Whisker Mitigation

George J.S. Chou* and Robert D. Hilty

Tyco Electronics Corporation

Tin Whisker Test Results for PCB Test Coupons with Immersion Tin Surface Finish

Dr. Martin Huehne , Natcharee Nitisantawakooop and Pakamas Ngamson - Celestica (Thailand) Limited

Application-Specific Tin Whisker Risk Assessment Algorithm- Update 2010

David Pinsky - Raytheon

A Case Study of Bismuth Whiskers in a Crystal Oscillator

Dr. Debasis Basak, L. H. Ponce and D.El. Boyarsky - Orbital Sciences Corporation

Tin Whiskers: A Test Method at the Electronic Board Level

JP. Michelet, Jannick Guinet and Carlos Perez - Schneider Electric

Whisker Bridging Risk Spacing Analysis of the back side of Quad Flat Packs

Dr. Stephan Meschter -BAE Systems

Risk of Whisker Induced Metal Vapor Arcs

Dr. Henning Liedecker NASA

Effectiveness of Conformal Coating in Mitigating Tin Whisker Induced Failures

Sungwon Han and Michael Osterman

University of Maryland

Measuring the mitigation capability of Conformal Coatings: Part 2

Dr. Chris Hunt and Martin Wickham - NPL

Tin Whisker Mitigated by Photonic Sintering for Sn-based Surface Finishes

Dr. Jamie Novak, Mohshi Yang, David Jiang-Applied Nanotech Ahmed Amin and Michael Osterman - University of Maryland

Results of Mitigation Effectiveness Survey and Plans for GEIA-STD-0005-2 Revision

Dr. Anduin Touw - Boeing

Lead-Free Manhattan Project- Tin Whiskers Gap Analysis and Research Roadmap

David Pinsky - Raytheon

Tin Whisker Evaluation Status for Space Application

Norio Nemoto - JAXA

**Center for Advanced
Life Cycle Engineering
4th International Symposium on Tin Whiskers**

June 23-24, 2010

Samuel Riggs Alumni Center

University of Maryland

College Park, MD, USA

Scope

The Center of Advanced Life Cycle Engineering at the University of Maryland in collaboration with The

Institute of Scientific and Industrial Research (ISIR) at Osaka University is pleased to announce the call for

participation for the Fourth International Symposium on Tin Whiskers. Tin whiskers present a unique

challenge to the electronics industry. There have been numbers of electronics failures in the market

caused by tin whiskers since 1940s. After 2000, as a result of the global transition to lead-free electronics,

the majority of the electronic component manufacturers are now using pure tin or tin-rich alloys for

terminal and lead finishes. The increased used of tin based lead-free finishes and materials, focused concern

and research on tin whiskers particular for long life and mission critical applications, such as

space Listing of proceeding of prior International Symposia on Tin Whiskers can
aviat be found at

A tin <http://www.calce.umd.edu/tin-whiskers/symposia.htm> previously grow from tin based lead-free f

Contact: CALCE, University of Maryland

surfaces even at room temperature, often in a needle-like form. Oxidation in humid atmosphere, corrosion,